

What is claimed is:

1 1. An optical moisture detector for measuring ambient
2 light conditions comprising:
3 an optical moisture sensor for sensing the presence of
4 moisture on a moisture collecting surface, the sensor operable to emit a
5 signal corresponding to sensed conditions; and
6 processor means for receiving the signal, for determining an
7 absolute ambient light value corresponding to existing ambient light
8 conditions, for comparing the value to a predetermined value, and for
9 emitting a control signal if the value is less than the predetermined value
10 as a result of the comparison.

1 2. The optical moisture detector of claim 1 further
2 comprising:
3 means, responsive to the control signal, for controlling a
4 light generating device.

1 3. The optical moisture detector of claim 1 further
2 comprising:
3 timer means for disabling the processor means from
4 comparing the value to the predetermined value for a predetermined
5 period of time.

1 4. The optical moisture detector of claim 1 wherein the
2 optical moisture sensor is operably mountable with respect to a
3 windshield of a motor vehicle.

1 5. The optical moisture detector of claim 1 wherein the
2 optical moisture sensor is operably positionable in a spaced relationship
3 relative to a windshield of a motor vehicle.

1 6. The optical moisture detector of claim 1 wherein the
2 optical moisture sensor further comprises:
3 a CCD camera for collecting data to be sent as signals to the
4 processor means.

1 7. The optical moisture detector of claim 1 wherein the
2 optical moisture sensor further comprises:
3 a CMOS camera for collecting data to be sent as signals to
4 the processor means.

1 8. The optical moisture detector of claim 1 wherein the
2 optical moisture sensor further comprises:
3 a photo array having a plurality of dark pixels and a plurality
4 of standard pixels for collecting data to be sent as signals to the
5 processor means.

1 9. The optical moisture detector of claim 1 wherein the
2 processor means further comprises:
3 a microprocessor for operably receiving the signal from the
4 sensor.

1 10. The optical moisture detector of claim 1 wherein the
2 processing means compares the absolute ambient light value to a first
3 predetermined value to determine if a signal to turn on a light generating
4 device is to be sent, and compares the absolute ambient light value to a
5 second predetermined value to determine if a signal to turn off the light
6 generating device is to be sent.

1 11. An optical moisture detector for measuring ambient
2 light conditions comprising:

3 an optical moisture sensor for sensing the presence of
4 moisture on a windshield of a vehicle, the sensor operable to emit a
5 signal corresponding to sensed conditions; and

6 processor means for receiving the signal, for determining an
7 absolute ambient light value corresponding to existing ambient light
8 conditions, for comparing the value to a predetermined value, and for
9 emitting a control signal if the value is less than the predetermined value
10 as a result of the comparison.

1 12. The optical moisture detector of claim 11 further
2 comprising:

3 means, responsive to the control signal, for controlling a
4 light generating device.

1 13. The optical moisture detector of claim 11 further
2 comprising:

3 timer means for disabling the processor means from
4 comparing the value to the predetermined value for a predetermined
5 period of time.

1 14. The optical moisture detector of claim 11 wherein the
2 processor means
3 emits the control signal only if at least two successive comparisons
4 indicate the value is less than the predetermined value.

1 15. The optical moisture detector of claim of claim 11
2 wherein the optical moisture sensor is operably mountable with respect
3 to a windshield of a motor vehicle.

1 16. The optical moisture detector of claim 11
2 wherein the optical moisture sensor is operably positionable in a spaced
3 relationship relative to a windshield of a motor vehicle.

1 17. A method of measuring ambient light conditions
2 comprising:
3 sensing the presence of moisture on a moisture collecting
4 surface with an optical moisture sensor, the sensor operable to emit a
5 signal corresponding to the sensed conditions;
6 receiving the signal and determining an absolute ambient
7 light value corresponding to the existing ambient light conditions with
8 processor means;
9 comparing the value to a predetermined value with the
10 processor means; and
11 emitting a control signal with the processor means if the
12 value is less than the predetermined value as a result of the comparing
13 step.

1 18. The method of claim 17 further comprising the step
2 of:
3 mounting the optical moisture sensor to the windshield of a
4 vehicle.

1 19. The method of claim 17 further comprising the step
2 of:
3 disposing the optical moisture sensor in a spatial relationship
4 relative to the windshield of a vehicle.

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